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LIST OF ABBREVIATIONS

BEA	–	Boundary Element Analysis
DSP	–	Digital Signal Processing
DTS	–	Digital Theatre Systems
DML	–	Distributed Mode Loudspeaker
EBP	–	Efficiency Bandwidth Product
ESL	–	Electrostatic loudspeaker
emf	–	Electromotive force
FEA	–	Finite Element Analysis
GMSs	–	Giant Magnetostrictive Materials
HRTF	–	Head Related Transfer Functions
LPM	–	Linear parameter measurement
LEAP	–	Loudspeaker Enclosure Analysis Program
NXT	–	New Transducers Ltd
SNR	–	Signal-to-noise ratio
SW	–	Subwoofer
TS	–	Thiele-Small
TRF	–	Transfer Function Measurement

LIST OF SYMBOLS

A	–	the absorption of the material (m^2 *Sabine*)
α_n	–	absorption coefficient of the actual surface
c	–	speed of sound
dB	–	Decibel
E	–	the Young's modulus (or modulus of elasticity)
f	–	frequency
γ	–	the gas constant equivalent to the thermodynamic ratio of specific heats
p	–	quiescent gas pressure
ρ	–	density of gas/material.
R	–	the absolute temperature of the gas
S_n	–	area of the actual surface (m^2)
RT_{60}	–	Reverberation Time
λ	–	wavelength
k	–	Wave number
Hz	–	Hertz
μ	–	micro
G	–	Giga
Pa	–	Pascal
F	–	Force
m	–	mass
a	–	acceleration
ϕ	–	phase
$g(t)$	–	harmonic variation of a quantity with time
c_{ph}	–	phase velocity
ω	–	angular velocity
η	–	transverse displacement

β	–	transverse rotation
B	–	bending stiffness
$v(\omega)$	–	bending wave velocity
T_{ij}	–	tensor
S_{ij}	–	strain tensor
ω_{ij}	–	rotation tensor
$d\mathbf{B}$	–	magnetic flux density
dW	–	magnetic work
dU	–	change of the internal energy
d_{33}	–	magnetostrictive constant
k_{33}	–	longitudinal coupling coefficient
SPL	–	Sound Pressure Level
fs	–	free air resonant frequency of a driver
f_C	–	resonant frequency of a driver in an enclosure
Q	–	measure of the amount of control of a driver
Q_{TS}	–	Q of a speaker in free air
Q_{TC}	–	Q of a speaker in an enclosure
Q_{MS}	–	mechanical Q of the driver
Q_{ES}	–	electrical Q of the driver
V_{AS}	–	volume of compliance
C_{MS}	–	mechanical compliance
S_D	–	cone area of driver
V_B	–	box volume
f_B	–	box resonance frequency
f_3	–	system cut-off frequency
L_v	–	length of port
R	–	port radius
F_c	–	Crossover frequency
R_T	–	tweeter's (or in this case, the midrange's) rated impedance in ohms
C	–	crossover series capacitance
R_W	–	woofer's rated impedance in ohms
L	–	crossover series inductance in henries
kOe	–	kilo-oersted

LIST OF APPENDICES